National Institute of Environmental Health Sciences

Infectious disease burden in Gujarat (2005-2011): Comparison of selected infectious disease rates with India

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Abstract:

Background: India is known to be endemic to numerous infectious diseases. The infectious disease profile of India is changing due to increased human environmental interactions, urbanisation and climate change. There are also predictions of exPLoSive growth in infectious and zoonotic diseases. The Integrated Disease Surveillance Project (IDSP) was implemented in Gujarat in 2004. Methods: We analysed IDSP data on seven laboratory confirmed infectious diseases from 2005-2011 on temporal and spatial trends and compared this to the National Health Profile (NHP) data for the same period and with other literature. We chose laboratory cases data for Enteric fever, Cholera, Hepatitis, Dengue, Chikungunya, Measles and Diphtheria in the state since well designed vertical programs do not exist for these diseases. Statistical and GIS analysis was done using appropriate software. Results: Our analysis shows that the existing surveillance system in the state is predominantly reporting urban cases. There are wide variations among reported cases within the state with reports of Enteric fever and Measles being less than half of the national average, while Cholera, Viral Hepatitis and Dengue being nearly double. Conclusions: We found some limitations in the IDSP system with regard to the number of reporting units and cases in the background of a mixed health system with multiplicity of treatment providers and payment mechanisms. Despite these limitations, IDSP can be strengthened into a comprehensive surveillance system capable of tackling the challenge of reversing the endemicity of these diseases and preventing the emergence of others.

Source: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3962030/

Resource Description

Early Warning System: ☑

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

Exposure : ☑

weather or climate related pathway by which climate change affects health

Unspecified Exposure

Geographic Feature: ☑

resource focuses on specific type of geography

Urban

Geographic Location: ☑

resource focuses on specific location

Non-United States

Non-United States: Asia

Asian Region/Country: India

Health Co-Benefit/Co–Harm (Adaption/Mitigation): ☑

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Infectious Disease, Other Health Impact

Infectious Disease: Airborne Disease, Foodborne/Waterborne Disease, Vectorborne Disease

Airborne Disease: Measles

Foodborne/Waterborne Disease: Cholera

Vectorborne Disease: Mosquito-borne Disease

Mosquito-borne Disease: Chikungunya, Dengue

Other Health Impact: Diphtheria

Medical Community Engagement: ☑

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified